

Appl. No. 09/741,616
Amdt. dated Nov. 6, 2005
Reply to Office action of Jul. 5, 2005

REMARKS/ARGUMENTS

Claims 1-38 remain in the application. The examiner rejected claims 1-38 in the final Office Action mailed July 5, 2005 (hereinafter referred to as "Office Action").

This amendment is being filed with a Request for Continued Examination and a request for a one month extension. A credit card authorization form is enclosed to pay for the fees. In addition, this amendment is timely filed within the one month extension on or before November 7, 2005 because the due date of November 5, 2005 was a Saturday. It is believed that no other fees are due at this time. The claim amendments are supported in the drawings and original specification. Accordingly, applicants respectfully submit that no new matter is added. In view of the following remarks and amendments, applicants respectfully request a timely Notice of Allowance be issued in this case.

Claim Rejections under 35 U.S.C. § 102

The examiner rejected claims 1-2, 8-10, 12-21, 23-27, 31 and 35-38 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,651,123 to Nakagawa et al. For anticipation, a single reference must identically disclose every element of the claimed invention. *Corning Glass Works v. Sumitomo Electric*, 9 USPQ 2d 1962, 1965 (Fed. Cir. 1989). A reference that excludes a claimed element, no matter how insubstantial or obvious, is enough to negate anticipation. *Connell v. Sears, Roebuck & Co.*, 220 USPQ 193, 198 (Fed. Cir. 1983).

Claims 1, 20, 31 and 38

With respect to claims 1, 20, 31 and 38, as amended, applicants respectfully submit that Nakagawa does not disclose, teach or suggest all the claimed elements. More specifically, Nakagawa does not disclose, teach or suggest:

- (1) an apparatus or method that allocates one or more resources within a processor to a decoded instruction; or
- (2) a resource identifier selector or method that determines how many of the resource identifiers, if any, are required by the decoded instruction and selects one or more of the resource identifiers for allocation to the decoded instruction.

As recognized by the examiner, and as shown in Figure 4 and throughout Nakagawa (e.g., col. 7, lines 25-32), Nakagawa uses a pseudo-random number program counter (30) to output instruction addresses that are to be read next from instruction memory (32) by instruction decoder (34). As a result, the pseudo-random number program counter (30) works with instructions prior to decoding by the instruction decoder (34). As a result,

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Nakagawa does not disclose, teach or suggest an apparatus that allocates one or more resources within a processor to a decoded instruction. Likewise, Nakagawa does not disclose, teach or suggest selecting one or more of the resource identifiers for allocation to the decoded instruction.

In addition, the pseudo-random number program counter (30) outputs one address for one instruction. As a result, Nakagawa does not disclose, teach or suggest does not determine how many of the resource identifiers, if any, are required by the decoded instruction and selects one or more of the resource identifiers for allocation to the decoded instruction. As claimed, the present invention can select zero, one or more resource identifiers for allocation to the decoded instruction.

Accordingly, applicants respectfully submit that claims 1, 20, 31 and 38, as amended, are not anticipated by Nakagawa and are, therefore, allowable under 35 U.S.C. § 102(b). Applicants respectfully request that the rejection of claims 1, 20, 31 and 38, as amended, be withdrawn.

Claims 2, 8-10, 12-19, 21, 23-27 and 35-37

With respect to claims 2, 8-10, 12-19, 21, 23-27 and 35-37, applicants respectfully submit that these claims depend from claims 1, 20 and 31, respectively and as amended, which are allowable for the reasons stated above, and further distinguish over the cited references. Accordingly, applicants respectfully request that the rejection of claims 2, 8-10, 12-19, 21, 23-27 and 35-37 be withdrawn.

Rejections under 35 U.S.C. § 103(a)

The examiner rejected: (1) claims 3-4 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,490,280 to Gupta et al.; (2) claims 5-7, 22, 28-29 and 32-34 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 5,530,837 to Williams et al.; and (3) claims 11 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 6,389,562 to Kondo et al.

In order to establish a prima facie case of obviousness, three criteria must be met: (1) there must be some suggestion or motivation in the prior art to modify the reference or to combine reference teachings as proposed, (2) there must be a reasonable expectation of success, and (3) the prior art or combined references must teach or suggest all the claim limitations. MPEP § 2143; *In re Vacek*, 947 F.2d 488 (Fed. Cir. 1991). "The prior art must suggest the desirability of the claimed invention." MPEP § 2143.01. **Both the invention and the prior art references must be considered as a whole.** MPEP § 2141.02. Applicants respectfully submit that claims 1-38, as amended, are not obvious over the cited art and are, therefore, allowable under 35 U.S.C. § 103(a) for the reasons stated below.

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There is no suggestion or motivation to modify or combine the references

As shown in Figure 4 and throughout Nakagawa (e.g., col. 7, lines 25-32), Nakagawa uses a pseudo-random number program counter (30) to output instruction addresses that are to be read next from instruction memory (32) by instruction decoder (34). As a result, the pseudo-random number program counter (30) works with instructions prior to decoding by the instruction decoder (34). In addition, the pseudo-random number program counter (30) outputs one address for one instruction.

As shown in Figure 1B, Gupta discloses a reorder buffer (507) downstream from the instruction decode (521). Applicants respectfully submit that there is no suggestion or motivation to take a post instruction decode reorder buffer and incorporate it into Nakagawa's pre-instruction decode pseudo-random number program counter (30). Moreover, even if such a combination were made, it would not disclose, teach or suggest the inventions recited in claims 1-38, as amended, because such a combination would be upstream of the instruction decode. As a result, Gupta does not cure the deficiencies of Nakagawa.

As shown in the Abstract, Williams discloses a method of allocating memory in an arbitrary number of memory banks. Applicants respectfully submit that even if the memory allocation method of Williams was combined with Nakagawa's pre-instruction decode pseudo-random number program counter (30), it would not disclose, teach or suggest the inventions recited in claims 1-38, as amended, because such a combination would be upstream of the instruction decode. As a result, Williams does not cure the deficiencies of Nakagawa.

As shown in the Abstract and throughout the description, Kondo discloses an encoding process that provides data recovery when transmission data loss occurs in compressed data (e.g., col. 3, lines 26-50). Applicants respectfully submit that there is no suggestion or motivation to take a data recovery method for compressed data and incorporate it into Nakagawa's pre-instruction decode pseudo-random number program counter (30). Moreover, even if such a combination were made, it would not disclose the inventions recited in claims 1-38, as amended, because such a combination would be upstream of the instruction decode. As a result, Kondo does not cure the deficiencies of Nakagawa.

Accordingly, applicants respectfully submit that claims 1-38, as amended, are not obvious over the cited art and are, therefore, allowable under 35 U.S.C. § 103(a). Accordingly, applicants respectfully request that the rejection of claims 1-38 be withdrawn.

There is no reasonable expectation of success

For the reasons stated above, applicants respectfully submit that there is no reasonable expectation of success to modify Nakagawa using the teachings of Gupta,

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Williams or Kondo. As a result, applicants respectfully submit that claims 1-38, as amended, are not obvious over the cited art and are, therefore, allowable under 35 U.S.C. § 103(a). Accordingly, applicants respectfully request that the rejection of claims 1-38 be withdrawn.

The cited references do not teach or suggest all the claim limitations

Unless the reference(s) teach or suggest all the claim limitations, obviousness cannot be found. MPEP § 2143.03. Further, once an independent claim is found to be non-obvious under 35 U.S.C. § 103, then any claim which depends from that independent claim is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). For the reasons stated below, applicants respectfully submit that the cited references do not disclose, teach or suggest all the claim elements of claims 1-38, as amended.

Claims 1, 20, 31 and 38

With respect to claims 1, 20, 31 and 38, as amended, applicants respectfully submits that Nakagawa, Gupta, Williams and Kondo, either alone or in combination, do not disclose, teach or suggest all the claimed elements for the reasons stated above. Accordingly, applicants respectfully submit that claims 1, 20, 31 and 38, as amended, are not obvious over the cited references and are, therefore, allowable under 35 U.S.C. § 103(a). Applicants respectfully request that the rejection of claims 1, 20, 31 and 38, as amended, be withdrawn.

Claims 2-19, 21-30 and 31-37

Applicants respectfully submit that claims 2-19, 21-30 and 31-37 depend from claims 1, 20 and 31, respectively, which are allowable for the reasons stated above, and further distinguish over the cited references. Claims 2-19, 21-30 and 31-37 are, therefore, allowable under 35 U.S.C. § 103(a). Accordingly, applicants respectfully request that the rejection of claims 2-19, 21-30 and 31-37 be withdrawn.

In addition, with respect to claims 11 and 30, the stall signal of Kondo results from the detection of data loss (col. 14, lines 5-11). Claims 11 and 30, as amended, recite that the stall signal is issued whenever the one or more resources are not allocatable to the decoded instruction. Claims 11 and 30 are, therefore, allowable under 35 U.S.C. § 103(a). Accordingly, applicants respectfully request that the rejection of claims 11 and 30 be withdrawn.

Conclusion

For the reasons set forth above, applicants respectfully request reconsideration by the Examiner and withdrawal of the rejections. Applicants submit that claims 1-38, as amended, are fully patentable. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If the Examiner has any questions or comments, or if

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further clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Respectfully submitted,

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